

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 15 December 2000 (15.12.00)	
International application No. PCT/IB00/00319	Applicant's or agent's file reference 26480.0816
International filing date (day/month/year) 25 February 2000 (25.02.00)	Priority date (day/month/year) 25 February 1999 (25.02.99)
Applicant LABATON, Isaac, J.	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
22 September 2000 (22.09.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Olivia TEFY

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

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NOTIFICATION CONCERNING
AMENDMENTS OF THE CLAIMS(PCT Rule 62 and
Administrative Instructions, Section 417)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE

in its capacity as International Preliminary Examining Authority

Date of mailing (day/month/year)

15 December 2000 (15.12.00)

International application No.

PCT/IB00/00319

International filing date (day/month/year)

25 February 2000 (25.02.00)

Applicant

ENCO-TONE LTD. et al

The International Bureau hereby informs the International Preliminary Examining Authority that no amendments under Article 19 have been received by the International Bureau (Administrative Instructions, Section 417).

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Olivia TEFY

Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

15

REC'D 13 FEB 2001

WIPO PCT

Applicant's or agent's file reference 26480.0816	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB00/00319	International filing date (day/month/year) 25 FEBRUARY 2000	Priority date (day/month/year) 25 FEBRUARY 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): G06F 15/16 and US Cl.: 709/229, 246; 713/168; 379/91.01		
Applicant ENCO-TONE LTD.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>0</u> sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step or industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application
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Date of submission of the demand 22 SEPTEMBER 2000	Date of completion of this report 28 DECEMBER 2000
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer BEATRIZ PRIETO <i>James R. Matthews</i>
Facsimile No. (703) 305-3230	Telephone No. (703) 305-0750

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB00/00319

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
- ☒ the description:
pages 1-21 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages 22-26 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages 1-3 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the
description: NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB00/00319

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	<u>1-11</u>	YES
	Claims	<u>NONE</u>	NO
Inventive Step (IS)	Claims	<u>1-11</u>	YES
	Claims	<u>NONE</u>	NO
Industrial Applicability (IA)	Claims	<u>1-11</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-11 meets the criteria set out in PCT Article 33(2)-(4), where Nerlikar (U.S. Patent No. 5,629,981) teaches a method for authenticating and validating the owner of a portable device, comprising the steps of: computing a dynamic identification code at the portable device (see Nerlikar: Figures 1 and 6, col. 6, lines 35-55); encoding via encryption module the identification code into an digital voice signature at the portable device (see Nerlikar: col. 7, lines 6-27, col. 8, lines 24-46); causing the portable device to transmit the digital voice signature over a voice line to a service server provider; decoding the digital voice signature into an identification code at the service server provider (see Nerlikar: col. 8, lines 54-60); transmitting the identification code in a transfer information service request to an authorization and validation service location (see Nerlikar: col. 10, lines 59-col. 11, line 5, 20-46, col. 12, lines 14-42) to be stored; causing the authorization and validation service location to transmit to the service server provider a digital validation of the digital voice signature (see Nerlikar: col. 22, lines 11-21) and further McAllister (U.S. Patent No. 5,655,007), teaches the method comprising the steps of: entering a credit card selection in the portable device for reading and retrieving information retrieved from the credit card associated with the credit card selection at the authorization service (see McAllister: col. 2, lines 60-col. 3, line 40), obtaining authorization for the transaction requested via selection means from the credit card and credit card company information associated with the credit card selection; and wherein a transmitting step further includes transmitting the credit card selection to the authorization service; the step of transmitting a digital document comprises transmitting credit card information, connecting with a public server adapted to read voice signals, enabling the user to browse requested information services based on voice recognition means adapted to interpret voice commands (see McAllister: col. 14, lines 28-53, col. 14, lines 58-col. 15, line 13, col. 16, lines 10-46), because the prior art does not teach or fairly suggest the step of: generating indicia of the identification code at the authorization and validation service location, comparing the (Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IB00/00319

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

indicia of the generated identification code to not the owner's stored identification code, but to a plurality of possible owner's identification code, producing through the comparison step the true owner of the portable device, nor the steps of: encoding of the credit card selection information into a digital voice signature, wherein the digital voice signature comprises the identification code, the transaction data, and the credit card selection; and further decoding the digital voice signature into the credit card selection.

Claims 1-11 meet the criteria of PCT Article 33(4), because the method for identifying the owner of a portable device is used in the authentication of user(s) accessing the Internet.

_____ NEW CITATIONS _____

NONE

TENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: DAVID O. CAPLAN
SNELL & WILMER L.L.P.
ONE ARIZONA CENTER
400 EAST VAN BURAN STREET
PHOENIX, AZ 85004-2202

RECEIVED

FEB 12 2001

PCT

NOTIFICATION OF TRANSMITTAL OF
INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

SNELL & WILMER

Date of Mailing
(day/month/year)

07 FEB 2001

Applicant's or agent's file reference

26480.0816

IMPORTANT NOTIFICATION

International application No.

PCT/IB00/00319

International filing date (day/month/year)

25 FEBRUARY 2000

Priority Date (day/month/year)

25 FEBRUARY 1999

Applicant

ENCO-TONE LTD.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

BEATRIZ PRIETO

Telephone No. (703) 305-0750

Form PCT/IPEA/416 (July 1992)*

Noted for receipt

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 26480.0816	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/IB00/00319	International filing date (day/month/year) 25 FEBRUARY 2000	(Earliest) Priority Date (day/month/year) 25 FEBRUARY 1999
Applicant ENCO-TONE LTD.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

NEW ABSTRACT

Methods for the secure identification of the owner (10) of a portable device (20) by a service provider (30), wherein the portable device (20) may be in communication with the service provider (30) over a voice line such as a telephone line or the like, and the portable device (20) does not require a personal computer. Furthermore, the methods provide for one-way, non-repudiable, non-trackable identification of the owner (10) of a portable device (20), and for the arbitration of a disputed transaction between the owner (10) of a portable device (20) and a service provider (30).

INTERNATIONAL SEARCH REPORT

International application No.

B00/00319

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F17/00

US CL : 709/229

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 709/229,227,228,234,224,713/150,379/88.02,704/231,382/115

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST search terms:portable, server, telephony,remote identification,authentication,validation,biometric

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,629,981 A (NERLIKAR) 13 May 1997, col.8 lines 3-66	1-11
Y	US 5,655,007 A (MCALLISTER) 05 August 1997, col.14, lines 2-53	1-11

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

12 JULY 2000

Date of mailing of the international search report

22 AUG 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

MARK RINEHART

Telephone No. (703) 305-3900

710

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

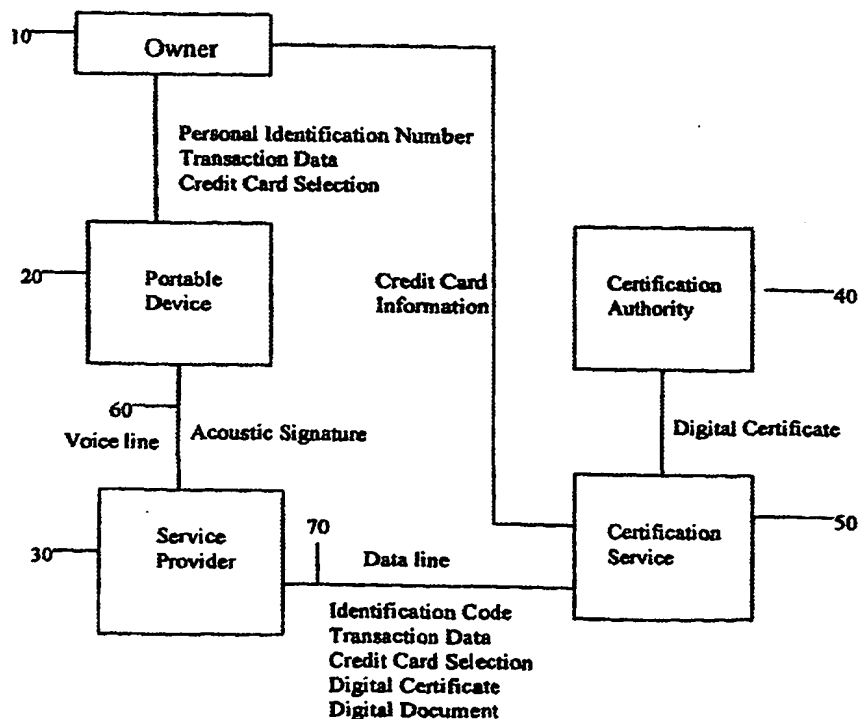
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : H04L		A2	(11) International Publication Number: WO 00/51280
			(43) International Publication Date: 31 August 2000 (31.08.00)
(21) International Application Number: PCT/IB00/00319 (22) International Filing Date: 25 February 2000 (25.02.00) (30) Priority Data: 128720 25 February 1999 (25.02.99) IL (71) Applicant (for all designated States except US): ENCO-TONE LTD. [IL/IL]; P.O. Box 45094, 91450 Jerusalem (IL). (72) Inventor; and (75) Inventor/Applicant (for US only): LABATON, Isaac, J. [IL/IL]; P.O. Box 45094, 91450 Jerusalem (IL).			(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>

(54) Title: METHOD AND APPARATUS FOR THE SECURE IDENTIFICATION OF THE OWNER OF A PORTABLE DEVICE

(57) Abstract

Methods for the secure identification of the owner of a portable device by a service provider, wherein the portable device may be in communication with the service provider over a voice line such as a telephone line or the like, and the portable device does not require a personal computer. Furthermore, the methods provide for one-way, non-repudiable, non-trackable identification of the owner of a portable device, and for the arbitration of a disputed transaction between the owner of a portable device and a service provider.



FOR THE PURPOSES OF INFORMATION ONLY

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CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 August 2000 (31.08.2000)

PCT

(10) International Publication Number
WO 00/51280 A3

(51) International Patent Classification⁷: G06F 17/00

(21) International Application Number: PCT/IB00/00319

(22) International Filing Date: 25 February 2000 (25.02.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
128720 25 February 1999 (25.02.1999) IL

(71) Applicant (for all designated States except US): ENCO-
TONE LTD. [IL/IL]; P.O. Box 45094, 91450 Jerusalem
(IL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): LABATON, Isaac, J.
[IL/IL]; P.O. Box 45094, 91450 Jerusalem (IL).

(81) Designated States (national): AE, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,

DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,
MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

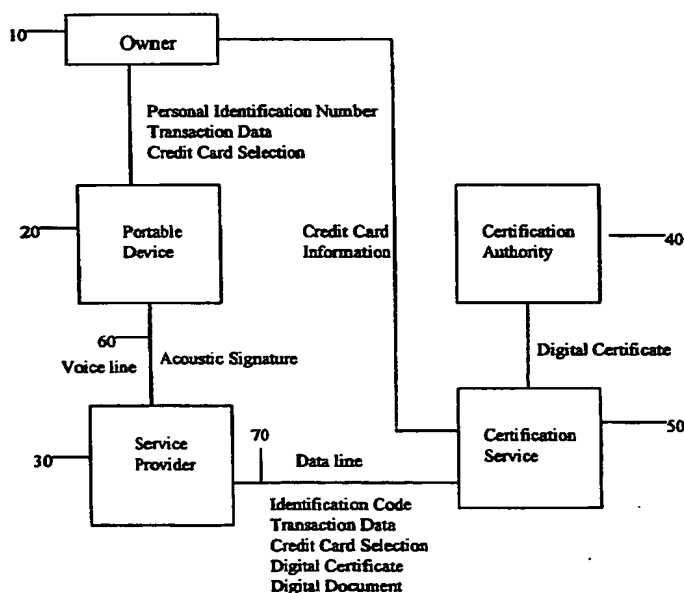
— With international search report.

(88) Date of publication of the international search report:

14 December 2000

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR THE SECURE IDENTIFICATION OF THE OWNER OF A PORTABLE DE-
VICE



(57) Abstract: Methods for the secure identification of the owner (10) of a portable device (20) by a service provider (30), wherein the portable device (20) may be in communication with the service provider (30) over a voice line such as a telephone line or the like, and the portable device (20) does not require a personal computer. Furthermore, the methods provide for one-way, non-repudiable, non-trackable identification of the owner (10) of a portable device (20), and for the arbitration of a disputed transaction between the owner (10) of a portable device (20) and a service provider (30).

WO 00/51280 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB00/00319

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F17/00

US CL : 709/229

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 709/229, 227, 228, 234, 224, 713/150, 379/88, 02, 704/231, 382/115

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST search terms: portable, server, telephony, remote identification, authentication, validation, biometric

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,629,981 A (NERLIKAR) 13 May 1997, col.8 lines 3-66	1-11
Y	US 5,655,007 A (MCALLISTER) 05 August 1997, col.14, lines 2-53	1-11

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents	* Later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
E earlier document published on or after the international filing date	*Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

12 JULY 2000

Date of mailing of the international search report

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